

Response Under 37 C.F.R. § 41.41  
Application No. 10/809,764  
Reply Brief dated November 3, 2008  
PPG Case No. 1925A1  
Attorney Docket No. 1925A1 (3152-063904)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application No. : 10/809,764 Confirmation No. 7933  
Applicants : George E. RICHARDS et al.  
Filed : 3/25/2004  
Title : Process for Manufacturing Powder Coating Compositions  
Introducing Hard to Incorporate Additives and/or Providing  
Dynamic Color Control  
Group Art Unit : 1791  
Examiner : Jeffrey Michael Wollschlager  
Customer No. : 28289

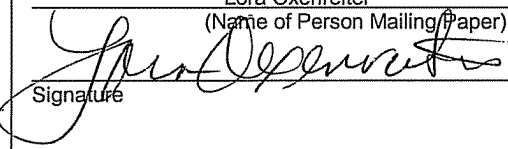
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Commissioner for Patents  
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Alexandria, VA 22313-1450

**REPLY BRIEF**

Sir:

This Reply Brief is submitted in response to the Examiner's Answer dated  
September 3, 2008.

I hereby certify that this correspondence is being electronically submitted to the United States Patent and Trademark Office on November 3, 2008.	
Lora Oxenreiter	
(Name of Person Mailing Paper)	
	11/03/2008
Signature	Date

## **I. Non-obviousness standards**

In order to establish a *prima facie* case of obviousness, the Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_\_, 82 USPQ2d 1385, 1395-97 (2007) identified a number of rationales to support a conclusion of obviousness which are consistent with the proper "functional approach" to the determination of obviousness as laid down in *Graham v. John Deere*, 383 U.S. 1, 17 (1966). See MPEP §2143.

The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. §103 should be made explicit. One exemplary rationale that may support a conclusion of obviousness is that some teaching, suggestion or motivation in the prior art would have led one of ordinary skill in the art to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. However, "[w]hen the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious." *KSR*, 550 U.S. at \_\_\_, 82 USPQ2d at 1395.

Evidence of non-obviousness such as a declaration under 37 C.F.R. §1.132 may be sufficient to rebut a finding of obviousness. *In re Palmer*, 451 F.2d, 1100, 1104, 172 USPQ 126, 128 (CCPA 1971). Despite the closeness of prior art, patentable subject matter may be found where a small difference has eluded those of ordinary skill in the art in search of a solution to a persistent problem or where that difference unexpectedly yields an improvement in an unexpectedly advantageous manner. *Id.* Upon evaluation of all the evidence, it may become evident that the level of skill was not quite what it appeared to be. *Id.*

## **II. Non-obviousness of claims 1-9**

In the present situation, Appellants have provided clear evidence that the Harmuth patent (No. 4,320,048) and the Chang patent (No. 4,973,439) do not provide

rationale for practicing the method of the present invention recited in claims 1-9, alone or in combination with the secondary references.

Claim 1 recites a step (B) of “injecting at least one hard to incorporate additive from a pressure vessel” to the base material of a thermosetting powder coating composition fed to an extruder “wherein the pressure in the pressure vessel is maintained at less than 100 psi”. Claim 1 and dependent claims 2-9 define over the prior art of record, which fails (alone or in any combination) to teach or suggest a process for manufacturing thermosetting powder coatings by injecting a hard to incorporate additive at a pressure below 100 psi by supplying the material from a pressure vessel maintained at less than 100 psi.

The Examiner only relies on an asserted desirability of reducing costs and vapor emissions and/or to address environmental concerns for maintaining a lower operating pressure to support a reasoning that Harmuth’s process would be practiced at the low pressure claimed. The Examiner points out the use of toluene as a solvent in Harmuth’s process to support a position that the Harmuth process does not teach high pressure extrusion. This reference to using toluene is in contrast to the actual teachings thereof, which specifically discloses at col. 2, line 7 “removing the volatile liquid” and devolatilizing the extrudate in a “devolatization zone” at col. 5, lines 1-7. Moreover, Chang discloses extruding toner particles at an average pressure of about 200-1500 psi, along with volatilizing vapors (via vacuum extraction) at col. 6, lines 35-36.

Appellants submitted the Declaration Under 37 C.F.R. §1.132 of Joseph M. Ferencz. The Ferencz Declaration was submitted to show that the “small difference” of using low pressure in powder coating extrusion has eluded those of ordinary skill in the art in search of the solution to the persistent problem of process control with volatile solvents, with the significant advantage of allowing for dynamical control thereof. See, *Palmer*, 451 F.2d at 1104, 172 USPQ at 128. Proper deference to the evidence submitted in rebuttal of the obviousness rejection of claims 1-9 is respectfully requested.

To the extent that processes such as those disclosed by Harmuth or Chang may desirably be operated to minimize cost and vapor emission and/or to

address environmental concerns for maintaining a lower operating pressure, those references disclose (either explicitly or implicitly) significantly higher operating pressures than the present invention. Thus, the combination of Harmuth and Chang would not have led one skilled in the art to modify their teachings in order to arrive at the claimed low pressure extrusion process. The secondary references (U.S. Patent Nos. 4,684,488 to Rudolph; 4,919,872 to Fintel; 6,638,353 to Rathschlag et al.; and 6,537,364 to Dietz et al.) do not account for the failure of Harmuth and/or Chang to provide a rationale for practicing the method of claim 1.

Upon proper recognition that neither the Harmuth nor the Chang patent relates to the incorporation of hard to incorporate additives at pressures below 100 psi; that neither Rudolph nor Fintel relate to the dynamic control of hard to incorporate additives; that the Vanier publication (U.S. Patent Application No. 2003/0125417) fails to disclose an additional dispersion step; that the Dietz patent does not disclose a method of dispersion as claimed in the present invention; that the combination of references cited does not teach or suggest the incorporation of hyperdispersed pigments at low pressure; and that the combination of references cited does not teach or suggest a method for dynamic control of a dried pigment dispersion operating at low pressure, rejection of claims 1-9, 13-15, 17-19, and 21-24 should be withdrawn.

Reversal of the final rejection and allowance of the pending claims is respectfully requested.

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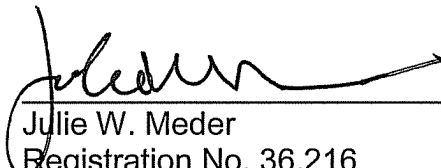
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Respectfully submitted,

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November 3, 2008

  
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